



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Johann M. Schleier-Smith : Group  
Serial No: 10/743,917 : Art Unit #1734  
Filed: 24 December 2003 : Examiner  
Title: METHOD OF ROBOTIC  
MANIPULATION USING  
FLUIDIC PATTERNING : Unknown

INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The Applicant wishes to make the following art references of record in the above-identified Patent Application pursuant to 37 C.F.R. §§ 1.97 and 1.98, and to the Duty of Disclosure set forth in 37 C.F.R. § 1.56.

Although the information submitted herewith may be "material" to the Examiner's consideration of the subject Patent Application, this submission is not intended to constitute an admission that such information is "prior art" as to the claimed invention.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search was made or that no other material information, as defined in 37 C.F.R. § 1.56(b), exists.

The cited Patent references are:

<u>Ref. No.</u>	<u>Patent No.</u>	<u>Issue Date</u>	<u>Inventor(s)</u>
A	6,216,631	04/17/2001	Wissner-Gross
B	6,216,538	04/17/2001	Yasuda, et al.
C	6,055,859	05/02/2000	Kozuka, et al.
D	6,029,518	02/29/2000	Oeftering
E	5,951,456	09/14/1999	Scott
F	5,831,166	11/03/1998	Kozuka, et al.
G	5,711,888	01/27/1998	Trampler, et al.
H	5,484,537	01/16/1996	Whitworth
I	5,164,094	11/17/1992	Stuckart
J	5,006,266	04/09/1991	Schram
K	4,998,553	03/12/1991	Schram
L	RE33,524	01/22/1991	Schram
M	4,957,606	09/18/1990	Juvan
N	4,879,011	11/07/1989	Schram
O	4,877,516	10/31/1989	Schram
P	4,759,775	07/26/1988	Peterson, et al.
Q	4,743,361	05/10/1988	Schram

MR1859-18  
Serial Number: 29/191,145

R	4,693,879	09/15/1987	Yoshimura, et al.
S	4,612,018	09/16/1986	Tsuboi, et al.
T	4,523,682	06/18/1985	Barmatz, et al.
U	4,055,491	10/25/1977	Porath-Furedi
V	6,335,059	01/01/2002	Wissner-Gross
W	5,545,367	08/13/1996	Bae, et al.

Cited Publications are:

<u>Ref. No.</u>	<u>Description</u>
AA	T.B. Benjamin and F. Ursell. The stability of the plane free surface of a liquid in vertical periodic motion. <i>Proc. R. Soc. London, Ser A</i> , 225:505-515, 1954.
AB	MC. Cross and P.C. Hohenberg. Pattern formation outside of equilibrium. <i>Rev. Mod. Phys.</i> , 65(3):851-1089, 1993.
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AE	P. Chen and J. Vinals. Amplitude equation and pattern selection in Faraday waves. <i>Phys. Rev. E</i> , 60(1):559-570, 1999.
AF	W.S. Edwards and S. Fauve. Patterns and quasi-patterns in the Faraday experiment. <i>J. Fluid Mech.</i> , 278:123-148, 1994.
AG	J. Fineberg and O. Lioubashevski. Propagating solitary waves in highly dissipative driven fluids. <i>Physica A</i> , 249:10-17, 1998.
AH	Alexander Groisman and Victor Steinberg. Solitary vortex pairs in

viscoelastic coquette flow. *Phys Rev. Letter.*, 78(8):1460-1463, 1997.

AI S. Kumar. Parametrically driven surface waves in viscoelastic liquids. *Physics of Fluids*, 11(8):1970-1981, 1999.

AJ S. Fauve, K. Kumar, C. Laroche, D. Beysens, and Y. Garrabos. Parametric instability of a liquid-vapor interface close to the critical point. *Phys. Rev. Lett.*, 68(21):3160-3163, 1992.

AK O. Lioubashevski, Y. Hamiel, A. Agnon, Z. Reches, and J. Fineberg, Oscillons and propagating solitary waves in a vertically vibrated colloidal suspension. *Phys. Rev. Lett.*, 83(16):3190-3193, 1999.

AL S. Kumar. Mechanism for Faraday instability in viscous liquids. *Phys. Rev. E*, 62(1):1416-1419, 2000.

AM Ron Lifshitz and Dean M. Petrich. Theoretical model for Faraday waves with multiple-frequency forcing. *Phys. Rev. Lett.*, 79(7):1261-1264, 1997.

AN F. Melo, P.B. Umbanhowar, and H.L. Swinney. Hexagons, Kinks, and Disorder in Oscillated Granular Layers. *Phys Rev. Lett.*, 75(21):3838-3841, 1994.

AO T. Pritchett and J.K. Kim. A low-cost apparatus for the production of surface wave patterns in a vertically oscillating fluid. *Am. J. Phys.*, 66(9):830-833, 1998.

AP Uri Raviv, Pierre Laurat, and Jacob Klein. Fluidity of water confined to subnanometre films. *Nature*, 413:51-54, 2001.

AQ P.B. Umbanhowar, F. Melo, and H.L. Swinney. Localized excitations in a vertically vibrated granular layer. *Nature*, 382(29):793-796, 1996.

AR Chen Weizhong and Wei Ronjue. Primary instabilities in Faraday waves under an arbitrarily periodic excitation. *Phys. Rev. E*, 57(4):4350-4353, 1998.

AS Xinlong Wang, and Ronjue Wei. Oscillatory patterns composed of parametrically excited surface-wave solitons. *Phys. Rev. E*, 57(2):2405-

MR1859-18  
Serial Number: 29/191,145

2410, 1998.

AT A. Wernet, C. Wagener, D. Papathanassiou, H.W. Muller, and K. Knorr.  
Amplitude measurements of Faraday waves. *Phys. Rev. E*, 63(036305): 1-9,  
2001.

AU Mary Silber and Anne C. Skeldon. Parametrically excited surface waves:  
Two-frequency forcing, normal form symmetries, and pattern selection.  
*Phys. Rev. E*, 59(5):5446-5456, 1999.

This Information Disclosure Statement is being filed more than three months  
subsequent to the Filing Date of the subject Patent Application, but before the mailing of  
a first Office Action.

A Form PTO-1449 and copies of the references are submitted along with this  
document. It is requested that the Examiner consider the references and make them of  
record in the above-referenced Patent Application.

Respectfully submitted,  
FOR: ROSENBERG, KLEIN & LEE

  
David I. Klein  
Registration #33,253

Dated: *6 May 2004*

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MAY 07 2004

PTO/SB/054 (08-03)

Approved for use through 07/31/2006. OMB 0651-0031  
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Application Number	10/743,917
Filing Date	24 DECEMBER 2003
First Named Inventor	Johann M. Schleier-Smith
Art Unit	1734
Examiner Name	

Attorney Docket Number MR1735-83/DIV

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> ( <i>if known</i> )			
A	US- 6,216,631		04/17/2001	Wissner-Gross	
B	US- 6,216,538		04/17/2001	Yasuda, et al.	
C	US- 6,055,859		05/02/2000	Kozuka, et al.	
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F	US- 5,831,166		11/03/1998	Kozuka, et al.	
G	US- 5,711,888		01/27/1998	Trampler, et al.	
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L	US- RE33,524		01/22/1991	Schram	
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N	US- 4,879,011		11/07/1989	Schram	
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R	US- 4,693,879		09/15/1987	Yoshimura, et al.	
S	US- 4,612,018		09/16/1986	Tsuboi, et al.	

**FOREIGN PATENT DOCUMENTS**

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> ( <i>if known</i> )				

Examiner Signature	Date Considered
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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	10/743,917
		Filing Date	24 DECEMBER 2003
		First Named Inventor	Johann M. Schleier-Smith
		Art Unit	1734
		Examiner Name	
Sheet	2	of	5
Attorney Docket Number			MR1735-83/DIV

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**U. S. PATENT DOCUMENTS**

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Sheet	3	of	5	Attorney Docket Number	MR1735-83/DIV

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AA	T.B. Benjamin and F. Ursell. The stability of the plane free surface of a liquid in vertical periodic motion. PROC. R. SOC. LONDON, SER A, 225:505-515, 1954.	
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	AK	O. Lioubashevski, Y. Hamiel, A. Agnon, Z. Reches, and J. Fineberg, Oscillons and propagating solitary waves in a vertically vibrated colloidal suspension. PHYS. REV. LETT., 83(16):3190-3193, 1999.	
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